



## State of Nevada – Department Of Personnel

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### CLASS SPECIFICATION

<u>TITLE</u>	<u>GRADE</u>	<u>EEO-4</u>	<u>CODE</u>
<b>SUPERVISOR II, ASSOCIATE ENGINEER</b>	<b>38*</b>	<b>B</b>	<b>6.211</b>
<b>OPTIONS: <u>Department of Transportation</u></b>			
<b>A. Construction Division</b>			
<b>B. Environmental Services Division</b>			
<b>C. Location, Photogrammetry &amp; Cartography Division</b>			
<b>D. Maintenance Division</b>			
<b>E. Materials and Testing Division</b>			
<b>F. Operations Analysis Division</b>			
<b>G. Road Design Division</b>			
<b>H. Safety Engineering Division</b>			
<b>I. Structural Design Division</b>			
<b>J. Districts</b>			
<b><u>University of Nevada</u></b>			
<b>K. UNR - Electrical Engineering Department</b>			

Under general supervision, perform, within the assigned option, engineering work requiring some professional training and experience and demonstrating capacity for independent work; supervise professional and/or technical employees and, in addition, in a university setting may supervise students. Work requires interpretation of general administrative and operational policies, procedures and guidelines.

Positions at the Supervisor II level supervise technical engineering and/or first level professional staff engineering employees and, in addition, in a university setting may supervise students, and perform engineering functions requiring the exercise of judgment in the analysis and interpretation of diverse and complex data that impact daily operations and implementation of established policy and procedures. Activities consist of duties that produce an analysis, recommendation, or provide significant advice used by others in making decisions. Positions at this level deal with management at or above the supervisor's level to include both internal and external contacts for the purpose of answering questions requiring explanations or interpretations of standard procedures and solving problems involving conflict requiring interpretation/application of policy.

#### ALL OPTIONS

Perform supervisory functions to include interviewing applicants; evaluating work performance based on established work performance standards; taking appropriate disciplinary action when needed; providing for staff training; assigning and reviewing work; and reviewing and approving leave and travel requests.

Prepare budget requests for future program/project/task requirements and prepare purchase requests for supplies, equipment and services based upon the approved budget; coordinate activities of the work group with other sections and divisions to eliminate duplication of effort.

**\* Reflects a 2-grade, special salary adjustment authorized by the 2001 Legislature to improve recruitment and retention.**

## **DEPARTMENT OF TRANSPORTATION**

### **Environmental Services Division**

Supervise the operations and staff of either 1) the Air Quality Section, 2) the Noise Section, or 3) the Hazardous Material/Waste Section within the division.

**Air Quality Section:** Schedule, organize, plan and supervise the air quality monitoring program for department projects; supervise or perform field surveys of project areas to determine suitable air quality monitoring sites; assemble project-related information to be utilized as computer modeling inputs; supervise or perform air quality impact modeling of selected department projects to determine vehicle composite emission factors and carbon-monoxide concentration levels representing the worst-case air quality impacts at the modeled sensitive receptor sites; write air quality technical reports, project-related air quality impact summaries, and conclusion statements; review material site construction applications to determine the type and quantity of air pollution emissions resulting from the proposed sand and gravel processing operations and transporting of agreements with consultants and other governmental agencies to provide air quality-related services; monitor and review the work performed by consultants; and review consultant's billings received for services rendered relative to evaluating project-related air quality impacts to ensure validity and accuracy for audit purposes.

**Noise Section:** Supervise the section's operations by planning and scheduling noise tasks; review environmental documents of consultants to ensure compliance with policies; and establish operating procedures and supervise the use of data gathering equipment; perform field studies to determine scope of project; determine need for collection of data and equipment necessary for the completion of the project; determine dates and times of field monitoring of existing noise in the proximity of new or modified roadways to provide valid data for conclusions and noise reports; and supervise the field survey of the project.

Prepare noise reports to include conclusions, recommendations, tables and graphics for inclusion into various environmental documents to obtain environmental clearances; and distribute reports to supervisors, consultants and other agencies.

**Hazardous Material/Waste Section:** Supervise hazardous material/waste operations at department facilities to ensure compliance with hazardous waste policies, and recommend corrective action when needed; prepare and revise the department's Hazardous Waste Transportation Policy; supervise the maintenance of the hazardous waste record keeping system; prepare various reports and documents for presentation to federal, State and local agencies, department personnel and the general public to include annual reports required of hazardous waste generators, hazardous waste tax reports, notifications of hazardous waste generation, status reports, clearance requests, and waste profiles; assist in the selection, contract development and contract negotiation process for contract consultants to provide professional expertise on hazardous waste related activities; oversee consultant operations; and train department personnel in the proper handling of hazardous wastes.

Perform hazardous material/waste site assessments on property that the department has acquired or is considering acquiring for future highway projects and respond to hazardous material/waste spills occurring on department properties.

### **Location, Photogrammetry and Cartography Division**

Evaluate and plan the execution of survey projects by meetings with the supervisor to develop a plan for the project; outlining the plan to the staff; assigning work to ensure the continued progress of the project; appraising the availability of resources to ensure that the needs of the project are met; tracking inventory to ensure adequate supply; and coordinating resources when two crews are working together.

Perform record-keeping activities to include compiling survey data, recording notes from observed survey information and filling out time sheets and performance reviews.

**DEPARTMENT OF TRANSPORTATION** (cont'd)

**Location, Photogrammetry and Cartography Division** (cont'd)

Supervise and train assigned staff in the use of all surveying equipment to ensure that the line and points being set are precise, that all measurements are completed correctly, that appropriate equations are used, and that appropriate notes are taken.

Create written records and drawings for future use by writing descriptions of survey monument and drawing diagrams to include triangulation networks and horizontal traverse information.

**Materials and Testing Division**

Supervise the operations and staff of either 1) the Asphalt Section, 2) the Bituminous Mix Design Section, 3) the Roadbed Aggregates and "R" Value Sections, 4) the Concrete and Steel Section, 5) the Roadbed Design Section, 6) the Field Exploration Section, or 7) the Pavement Analysis Section within the respective branches of the Materials and Testing Division. Supervisory functions in these sections include planning and organizing a testing laboratory that conforms to the goals and objectives of the division; prioritizing the testing to be conducted to ensure smooth and efficient work flow; directing the lab personnel in the type of testing to be conducted to ensure each sample is tested according to specifications; reviewing and evaluating engineering calculations; coordinating the inventory for the section to maintain necessary quantities of equipment and supplies; and participating in the development of new programs and specifications.

Evaluate materials by inspecting materials that do not conform to expected results to determine the probable cause; providing information and making recommendations to engineers in the field and contractors regarding the types and approved use of materials; reviewing plans and specifications prior to and after the award of contracts to ensure the quality of materials; and reviewing new and existing test methods to select the best way to evaluate materials.

Direct lab personnel in research activities by assigning personnel to conduct independent laboratory testing to determine engineering properties of materials and mixes.

In addition, in the Pavement Analysis Section: Oversee the activities of the Radiation Safety Officer and monitor the adherence to the radioactive materials license by observing nuclear gauge handling practices and procedures at highway construction sites and programs testing labs; ensuring that all safety information relative to nuclear gauges is incorporated into Nevada's Radiological Health Safety Plan; and ensuring that all records are properly maintained by reviewing activities with the Radiation Safety Officer to ensure compliance with the radioactive materials license.

**Road Design Division**

Supervise either a design squad involved in the design of roadway projects or staff involved in consultant review.

**Consultant Review:** Supervise the work involved in consultant review by coordinating and reviewing consultants' final design of transportation projects to provide advice in contract plan sheet preparation; aiding in specifications preparation to ensure designs are properly interpreted into the special provisions for the contract; and preparing estimates by generating preliminary cost estimates for budgeting and costing information.

Aid in the development and implementation of preliminary design of transportation projects; review and comment on consultant design submittals; provide technical assistance in the development of project agreements; and perform research to identify previous construction and current existing conditions for the project.

**DEPARTMENT OF TRANSPORTATION** (cont'd)

**Road Design Division** (cont'd)

**Roadway Projects:** Supervise a design squad and perform tasks involved in the design of roadway projects; determine the type and scope of the project; conduct preliminary design field studies; identify minimum requirements for the project; set design geometrics by application of various design standards and guidelines, established practices and sound engineering judgment; set roadside design elements; develop traffic control plans and construction staging to provide a safe construction zone for motorists and workers and to expedite traffic flow through the construction work site; develop a striping plan; verify and/or calculate quantities of earthwork, base and surface, drainage items and traffic control, so that all items can be accounted for and an accurate estimate can be made; prepare information for public hearings; establish limits or right of way required for a project; design or modify special details when standard drawings are insufficient to address project needs; and perform tasks involved in the compilation of contract data.

**Safety Engineering Division**

Supervise either the Railroad Safety Engineering Program, or the Statewide Safety Engineering Program within the division.

**Railroad Safety Engineering:** Manage programs related to railroad safety engineering by supervising the compilation of raw statistical data from various sources to include field data to establish statewide railroad crossings; preparing preliminary investigative reports to include design and operational characteristics for the improvement of hazardous safety conditions; performing preliminary engineering work using standard engineering methods to establish quantities and costs; conducting joint multi-disciplinary diagnostic reviews and making recommendations for improvements; participating in final inspection and contract acceptance to ensure projects are completed in accordance with State and federal standards; and submitting applications for authority to alter railroad crossings and presenting testimony before the Nevada Public Service Commission.

Coordinate activities between the Federal Railroad Administration and the department concerning local rail state assistance projects during construction; keep billing records and authorize payments.

Supervise a working records management system and retrieval process for all project documents, standards, and technical information related to the Railroad Safety Section.

**Statewide Safety Engineering:** Serve as the project coordinator for the Hazard Elimination Program and the Federal Highway Administration Section 402 Safety Program.

Prepare design plans for fence projects by conducting pre-design field review; determining necessary environmental, right-of-way, and other clearances; preparing engineering estimates and establishing required quantities of materials; negotiating and drafting agreements pertaining to cost sharing, maintenance and other facets of construction; preparing plan sheets and determining special details; and directing the purchase of materials.

Conduct safety studies by evaluating, interpreting and verifying accuracy of traffic accident data; developing costs that relate dollar values to average property damage losses, potential earning power, medical costs, insurance costs, inflation, funeral costs, and allied services costs; developing engineering countermeasures to reduce and/or eliminate specific accident causes; and providing engineering estimates and an economic analysis to management for prioritization and implementation.

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## MINIMUM QUALIFICATIONS

### SPECIAL NOTES AND REQUIREMENTS:

- \* Positions within the class may require specialized education and experience which will be identified at the time of recruitment.
- \* Specific duties and knowledge, skills and abilities for those options not described in this class specification may be determined at the time positions are classified. Positions being classified must meet the entry level knowledge, skills and abilities common to all options. Judgment must be applied in determining the degree to which a specific position being classified meets the intent of the class concepts.
- \* Employees in this class who are not registered professional engineers may not represent themselves as such to other persons or entities.

### ALL OPTIONS

**EDUCATION AND EXPERIENCE:** Bachelor's degree from an accredited college or university in civil engineering or other closely related engineering field and two years of professional engineering experience; **OR** certified as an Engineering Intern and two years of professional engineering experience; **OR** two years of experience comparable to the Staff I, Associate Engineer or the Supervisor I, Associate Engineer level. (*See Special Notes and Requirements*)

**ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES** (required at time of application):

### ALL OPTIONS

**Working knowledge of:** basic engineering principles and practices; principles of engineering drafting including nomenclature, symbols and sources of information; the practical application of fractions, percentages, ratios and proportions, practical algebra, geometry and trigonometry to perform typical assignments. **Knowledge of:** computer hardware and software sufficient to operate the mainframe, personal computers and scientific calculators. **Ability to:** make computations and calculations involving the practical application of engineering principles; understand technical reports and maps; write technical reports; work within a cartesian coordinate system; perform under the stress of frequent interruptions and/or distractions sufficient to accomplish assignments in an acceptable and timely manner; perform a variety of duties, often changing from one task to another of a different nature, with minimum notice, delay or reduction of quality; establish and maintain cooperative working relationships with other department and governmental agency employees sufficient to exchange information, accomplish assignments and/or communicate department goals, priorities and policies to avoid project delay; work independently and follow through on assignments to acceptable completion with minimal direction; work as part of a team; analyze information, problems, and procedures in order to formulate logical decisions and solutions; organize personal and resources to accomplish assigned tasks.

### DEPARTMENT OF TRANSPORTATION

#### Environmental Services Division

**Working knowledge of:** principles of civil and environmental engineering, with emphasis on highway design, construction, maintenance methods, and operations to evaluate impacts on air quality by proposed department projects; meteorology, air pollution emissions, chemistry and physics to analyze their inter-relationships and implement practical application in the engineering evaluation of air quality impacts; air quality monitoring to comprehend their purpose, function, requirements, operating and calibration procedures to obtain accurate and valid data.

**Noise Section - Physical ability to:** handle heavy or cumbersome field equipment and dexterity to operate these tools. **Skill in:** roadway engineering in geometrics such as vertical and horizontal alignment visualization, interpretation and calculation of highway construction plans.

## **MINIMUM QUALIFICATIONS (cont'd)**

### **ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (cont'd)**

#### **DEPARTMENT OF TRANSPORTATION (cont'd)**

##### **Environmental Services Division (cont'd)**

**Hazardous Material/Waste Section - Working knowledge of:** regulations that govern hazardous materials/waste/substances; Occupational Safety and Health Administration regulations. **Knowledge of:** hazardous materials/waste/substance terminology. **Ability to:** write concise, logical, and grammatically correct analytical reports for environmental clearances and hazardous waste incidents.

##### **Location, Photogrammetry and Cartography Division**

**Knowledge of:** surveying and general engineering techniques; engineering calculations and procedures to determine whether a result meets standards; operational procedures of all survey equipment used; techniques used to adjust or repair equipment and instruments; which repairs can be made on site and which require repair at an authorized shop; what is needed to thoroughly describe monuments. **Ability to:** read and understand maps, highway plans, parcel plats and engineer's seal; recognize possible solutions to various problems arising in surveying; recognize a potential danger or hazard; instill in the crew the importance of safety consciousness; clearly express in writing the features of the monument and surrounding landmarks.

##### **Materials and Testing Division**

**All Section - Working knowledge of:** Material Safety Data Sheets to ensure safety when working with hazardous materials, chemicals, and/or equipment; current principles and practices of civil engineering with reference to material characteristics and testing procedures. **Ability to:** read and comprehend technical documents to determine compliance with specifications.

**Concrete and Steel Section - Working knowledge of:** the physical characteristics and engineering properties of materials including concrete, cement, reinforcing steel, aggregates and concrete admixtures; the properties and behavior of hardened concrete including strength, cracking, shrinkage, elasticity, durability, permeability and chemical reactivity; concrete mix design theory and procedures.

**Roadbed Design Section - Working knowledge of:** Roadbed Design Manuals; soil types and characteristics; principles of roadbed design and their proper applications; types and uses of road building materials; modulus values as related to soils and pavements. **Knowledge of:** current principles and practices related to the design of rigid and flexible pavement structures. **Ability to:** identify possible construction concerns by analyzing field notes and laboratory data.

**Field Exploration Section - Detailed knowledge of:** equipment capabilities, safe and proper operating procedures, and proper sampling and testing procedures. **Working knowledge of:** surveying instruments and field techniques surveying instruments and field techniques. **Ability to:** read and understand geological and topographical maps; evaluate equipment condition and serviceability.

##### **Road Design Division**

**Roadway Projects - Detailed knowledge of:** safety precautions necessary when working near or in moving traffic. **Working knowledge of:** department plan, specification and estimate process and the interaction among department divisions and outside agencies; the sequence and steps necessary to complete a final contract plan set and related specifications. **Ability to:** explain engineering terminology, concepts and calculations to design subordinates; read and communicate general engineering information from plans, drawings, manuals, correspondence, reports, graphs and memoranda; write and convey engineering and other

**MINIMUM QUALIFICATIONS (cont'd)**

**ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (cont'd)**

**DEPARTMENT OF TRANSPORTATION (cont'd)**

**Road Design Division (cont'd)**

**Roadway Projects (cont'd)**

information into working plans, drawings, reports, correspondence, displays and memorandums in plain English; interpret structural drawings and specifications pertaining to all aspects of roadway and interchange design; read technical, legal or scientific documents, such as standard specifications and right of way agreements; write concise, logical, and grammatically correct analytical reports to explain engineering data developed in the design process; analyze accident information to identify relevant concerns.

**Safety Engineering Division**

**Railroad Safety Engineering - Ability to:** calculate cost/benefit ratios, compute stopping distance requirements and various analytical calculations; read and interpret contract plans, calculate grade, interpret field books, spot cross-sections and make base and surface calculations and prepare an estimate of quantities.

**Statewide Safety Engineering - Detailed knowledge of:** the State's network of federal and State highways. **Working knowledge of:** traffic control systems and their operations. **Ability to:** perform statistical computations necessary for regression analysis, confidence levels, distribution methods, forecasting, estimation and correlation; calculate accident rates and vehicle miles of travel; interpret roadway contract plans.

**FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):**

**ALL OPTIONS**

**General knowledge of:** purchasing rules, regulations, policies and procedures sufficient to properly complete draft budget and purchase requisitions to obtain equipment and materials. **Knowledge of:** where to go within the department including other section/division functions, personnel, location and source of documents to obtain required information, equipment and materials; State and department administrative and personnel policies, procedures and regulations. **Ability to:** analyze information, problems, situations, practices, or procedures to define the problem, identify relevant concerns, factors or cause and effect relationships, formulate logical and objective conclusions, recognize alternatives and their implications, and think through the consequences of a decision thoroughly prior to making it by considering department policies and past experience or precedents to avoid the adverse impacts of work-related errors; supervise to include organizing work flow to accomplish established objectives, managing equipment and material resources, delegating responsibility, training and evaluating subordinate worker's effectiveness and/or administering necessary discipline; organize material, information and personnel in a systematic manner to optimize efficiency and minimize duplication of effort; review, monitor and check the work of others; appraise an employee's performance with respect to established work performance standards; read and examine technical, legal and scientific documents to include research reports, contracts, specifications and regulations sufficiently to comprehend, interpret, evaluate and communicate the information presented; prioritize and delegate assignments to complete tasks in a timely manner when there are changes in importance, deadline pressures, competing requirements and a heavy workload; speak on a one-to-one basis and make group oral presentations to obtain information and services and/or to explain procedures, policies, regulations, or to persuade others to consider department concerns or position; interact with persons of various social, cultural, economic and educational backgrounds; research specifications, schematics, drawings, manuals and publications to obtain required information and apply to specific needs of a project; analyze laboratory data; encourage, train and motivate subordinates in a manner which generates a level of mutual trust and respect.

## **MINIMUM QUALIFICATIONS (cont'd)**

### **FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (cont'd)**

#### **DEPARTMENT OF TRANSPORTATION**

##### **Environmental Services Division**

**Air Quality Section - Working knowledge of:** other governmental agencies, their services, roles, and responsibilities sufficient to contact them appropriately; department planning documents, Federal Environmental Protection Agency air quality monitoring manuals and Federal Highway Administration policy guidelines sufficiently to know the type of information available for effective utilization purposes; applicable air quality federal, State and local laws, regulations and guidelines pertaining to air quality environmental engineering and the preparation of environmental documents to determine requirements and procedures necessary to accomplish assignments and evaluate impacts on department activities; computer hardware and software to comprehend the requirements and functions of and/or operate the facility mainframe computer, personal computers and calculate air quality programs to obtain accurate and valid data. **Ability to:** comprehend and interpret the information available in department planning documents, Federal Environmental Protection Agency air quality monitoring manuals and Federal Highway Administration policy guidelines to classify projects and determine required level of analysis; write concise, logical, analytical, technical and grammatically correct correspondence suitable for publication in environmental documents.

**Noise Section - Working knowledge of:** intra-departmental as well as inter-agency responsibilities and concerns. **Ability to:** create graphic displays from existing aerial photos and plans to depict proposed roadways, barriers, and sound walls for public use; use electronic and computer instrumentation such as noise analyzer, wind meter, speed gun, calibrator and related equipment; write technical noise reports which are used by the Federal Highway Administration, land use planners and the general public.

**Hazardous Material/Waste Section - Knowledge of:** chemistry; incompatible chemicals; personnel protective equipment including respirators. **Ability to:** recognize an emergency situation and take appropriate action; understand and apply math knowledge to project plans, laboratory testing, data conversions, contract payments, and hazardous waste taxes; create contracts/agreements for hazardous waste functions; present training classes in a pleasant, knowledgeable, and understandable manner; analyze plans, topographies and maps in order to physically locate landmarks and land features in the field.

##### **Location, Photogrammetry and Cartography Division**

**Knowledge of:** how different misadjustments or damage will affect results. **Skill to:** coordinate the work done by the crew with the needs of headquarters, the districts, land owners, and utility companies.

##### **Materials and Testing Division**

**All Sections - Working knowledge of:** current principles and practices of engineering with reference to material properties and testing procedures; the department's standard specifications, contract plans and special provisions. **Ability to:** read and comprehend technical documents to determine compliance with specifications; write and analyze technical reports of test procedures and data; modify or adapt test methods or procedures effectively to correspond with updated specifications.

**Asphalt Section - Working knowledge of:** chart and graph formatting to complete viscosity-temperature charts; measuring system units to determine accurate measurement and computation of asphalt test results. **Ability to:** interpret mechanical drawings and specifications pertaining to asphalt testing equipment.

**Bituminous Mix Design Section - Working knowledge of:** the department specifications related to bituminous materials. **Ability to:** interpret mechanical drawings and specifications pertaining to bituminous testing equipment.



**MINIMUM QUALIFICATIONS (cont'd)**

**FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (cont'd)**

**DEPARTMENT OF TRANSPORTATION (cont'd)**

**Materials and Testing Division (cont'd)**

**Roadbed Aggregates and "R" Value Sections: Working knowledge of:** all types of soil and aggregate sampling devices and complex testing apparatus for the explicit purposes of training, maintenance, repairs and staying abreast with current industry standards and requirements. **Knowledge of:** State and federal specifications related to soil and aggregate materials. **Ability to:** interpret mechanical drawings and specifications pertaining to the design of soil and aggregate testing equipment.

**Roadbed Design Section - Ability to:** adapt roadbed design procedures to a variety of situations; read and interpret laboratory soil data and field notes; discuss material needs and roadbed design policy with inter-agency personnel and representatives of the Federal Highway Administration; specify material requirement for projects.

**Field Exploration Section - Skill in:** mathematics sufficient to calculate needed quantities of material and calculate and plot survey data.

**Pavement Analysis Section - Working knowledge of:** test procedure guidelines of pavement evaluations; rigid and flexible pavement distresses; the requirements and provisions of the radioactive materials license; radiation safety principles; department policies pertaining to nuclear gauges; certification requirements pertaining to radiation safety; thermoluminescent dosimetry principles. **Ability to:** properly assemble all components of field testing equipment; interpret field test data for accuracy while at work site; set up safe and effective traffic control areas; conduct a proper pretrip vehicle inspection and/or equipment inspection; operate department vehicle radio equipment; properly calibrate field testing equipment; properly operate a vehicle-trailer combination; use Geiger-Mueller counter.

**Road Design Division**

**Consultant Review - Working knowledge of:** materials and testing methods, hydraulic design, structural design, signals and lighting to ensure compatibility with project roadway features; construction methods, practices and accounting that allows for the determination of constructability; traffic capacity and its application to roadway geometric design; traffic control for construction.

**Roadway Projects - Working knowledge of:** guidelines, regulations and standards mandated from federal, State, city and county sources and contained in various reference sources. **Knowledge of:** related outside transportation agencies, their services, roles and responsibilities.

**Safety Engineering Division**

**Railroad Safety Engineering - Working knowledge of:** federal program guidelines. **Knowledge of:** railroad track fundamentals, elementary track circuits and types of equipment. **Ability to:** keep a ledger and interpret various accounting reports to ascertain project costs and submit accurate financial accounting reports to the Federal Railroad Association. **Skill in:** dealing with various public administrators and consulting engineers and make valid independent decisions that may affect the department.

**Statewide Safety Engineering - Working knowledge of:** the cause and effect relationship between vehicle momentum and accidents; the various codes used for translating the accident details into computer formats; numerous computer programs used for retrieving, entering, and editing traffic accident data. **General knowledge of:** the Federal Safety Act and the policies and guidelines contained within. **Knowledge of:** drivers' behavioral characteristics when applied to changes in roadway environment; demographics and travel

**MINIMUM QUALIFICATIONS** (cont'd)

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (cont'd)

**DEPARTMENT OF TRANSPORTATION** (cont'd)

**Safety Engineering Division** (cont'd)

**Statewide Safety Engineering** (cont'd)

trends; highway capacity terms and terminology; traffic generation models to determine future traffic patterns and volumes; economic methods and procedures; the Federal Highway Program Manual, Highway Safety Improvement Program, the American Association of State Highway Traffic Officials' policy and geometric design of highways and streets. **Ability to:** establish and maintain cooperative working relationships with local, federal and State traffic engineers, safety engineers and planners; analyze traffic accident patterns, traffic accident causes and effects, engineering deficiencies, methods of accomplishing objectives, and choosing corrective alternatives.

This class specification is used for classification, recruitment and examination purposes. It is not to be considered a substitute for work performance standards for positions assigned to this class.

6.211

ESTABLISHED:	7/1/93P
	8/31/92PC
REVISED:	11/17/93UC
REVISED:	9/18/95UC
REVISED:	7/1/01LG